

COMMUNICATIONS PANEL, 623323 AND 623324

GENERAL DESCRIPTION

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1. GENERAL

- 1.01 This Section provides a general description of the communications panel, 623323 and 623324 (Fig. 1), to the functional block diagram level.

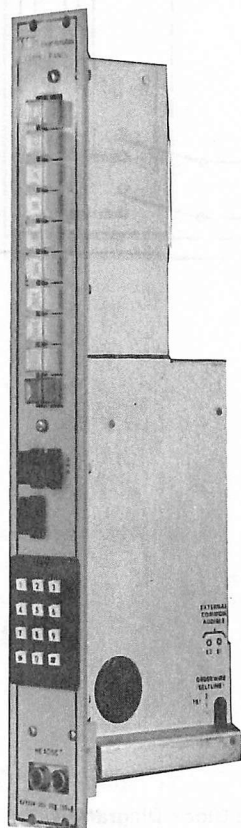


Fig. 1—Communications Panel, 623324, Pushbutton Dial

- 1.02 This Section has been reissued to revise the format and combine Sections ITTR-15-023 and ITTR-15-024.

- 1.03 The unit is a nine line plus hold telephone set. It can be operated to initiate, answer, and hold calls (with proper interfacing key system) on a maximum of nine central office (C.O.) or private branch exchange (PBX) lines. The panel is equipped with either a rotary dial, 623323, or a pushbutton dial, 623324.

2. DESCRIPTION

- 2.01 The unit is designed to mount in the right upright flange of the T324 and D448 prewired bays. Installation procedures for the unit are provided in Section ITTR-15-323/ITTR-18-423.

- 2.02 Both units are available in four groups. The group differences are described in Table A.

TABLE A

GROUP NO.	DIFFERENCES
-001	Basic unit; provides line selection and hold functions.
-002	Same as Group -001 with circuits to provide common audible.
-003	Same as Group -001 with circuits to provide belt line access (BLA).
-004	Same as Group -001 with common audible and BLA circuits.

- 2.03 The unit consists of a front panel, a printed circuit board (PCB), and a side cover. The PCB provides unit wiring and has electrical components mounted on it. The cover is mounted on the component side of the PCB. External connections to the associated key system are made via 50-pin Amphenol-type connector (supplied with unit) mounted at the upper rear of the PCB.

- 2.04 The front panel consists of nine LINE SELECT switches (S1 through S9), a HOLD switch (S10), an HKSW (S11), an AMP switch (S12), and a pushbutton or

rotary DIAL switch (S14). Headset jacks are located on the front panel for monitoring. Groups -003 and -004 also have a BLA switch (S13). Each LINE SELECT switch has an associated lamp that turns on to indicate an active line.

3. FUNCTIONAL OPERATION (FIG. 2)

3.01 The HKSW is pressed to initiate a call. When pressed, the HKSW completes the path between the matching network and LINE SELECT switches, between the hold input and LINE SELECT switches, and removes the short between the receive tip and ring.

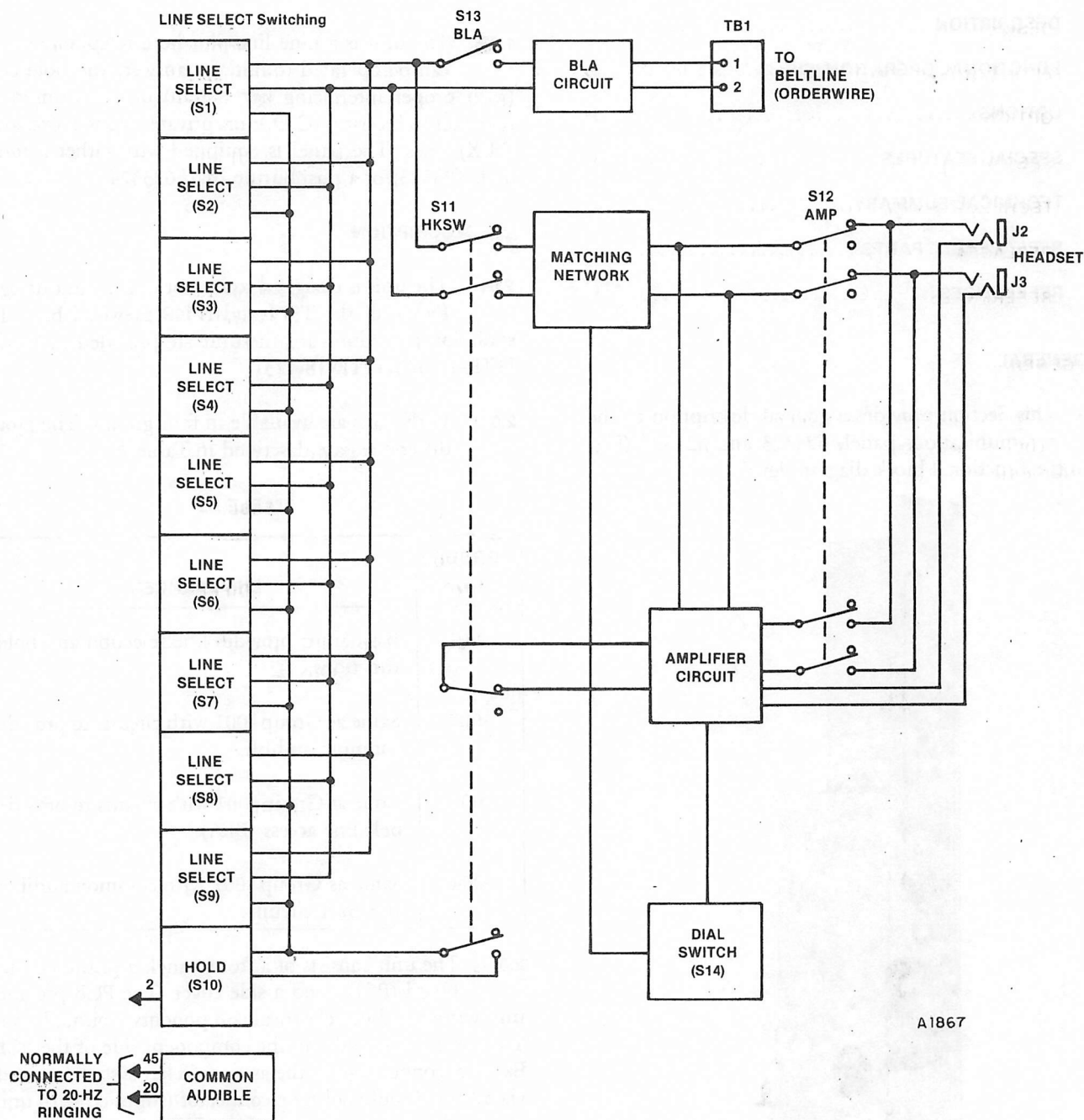


Fig. 2—Communications Panel, 623323 and 623324, Functional Block Diagram

3.02 The nine LINE SELECT switches (S1 through S9) connect the panel to up to nine lines from the key system. Any one line may be selected or multiple lines (conference call) may be selected by pressing more than one switch. Each switch provides tip and ring connection and completes the HOLD switch connection. Each switch contains an associated lamp that turns on to indicate a busy line.

3.03 The HOLD switch (S10) is a momentary switch and, when pressed, signals the key system to hold an active line. Normally, the HOLD switch is closed and, together with the HKSW and LINE SELECT switches, provide a continuity loop to the key system. Pressing the HOLD switch opens the loop and signals the key system to hold the line.

3.04 The AMP (amplifier) switch (S12) provides the option of adding 6 dB of gain to the transmit signal. With the switch released, the transmit signal is fed directly to the matching network without being amplified. With the switch pressed, the transmit signal is fed to the amplifier circuit and amplified by 6 dB before it is applied to the matching network.

3.05 The BLA (belt line access) switch (S13) is a momentary switch. When pressed, the loop current provided by one of the LINE switches is applied to the BLA circuit. The circuit connects the selected line(s) and headset to the belt line and provides a current path that remains energized until all LINE SELECT switches are released.

3.06 The DIAL switch (S14) is a miniature rotary or pushbutton switch used to initiate calls from the communications panel.

4. OPTIONS

4.01 This unit has no field-selectable options.

5. SPECIAL FEATURES

5.01 Terminals E1 and E2 are provided on the PCB for connecting an external audible device for common audible.

6. TECHNICAL SUMMARY

6.01 A summary of technical specifications for the unit is given in Table B.

TABLE B

ITEM	SPECIFICATION
TONE OUTPUT (Pushbutton Dial Only)	
Row Frequency	
1	697 Hz
2	770 Hz
3	852 Hz
4	941 Hz
Column Frequency	
1	1209 Hz
2	1336 Hz
3	1477 Hz
DIAL (Rotary Dial Only)	
Dial Pulse Speed	10 $\pm$ 1 pulses/sec
Percentage Break	61.5 $\pm$ 4 %
AMPLIFIER GAIN	
Rotary Dial	13.5 dB (typical), - 5.0 dB minimum
Pushbutton Dial	11.0 dB, (14.5 dB maximum)
BLA LOOP CURRENT (Groups -003 and -004 Only)	
Rotary Dial	23 mA (amplifier off)
Pushbutton Dial	25 mA (amplifier off)
COMMON AUDIBLE	
Power (Input)	60 Vrms at 60 Hz minimum
Frequency (Output)	2900 $\pm$ 500 Hz
DIMENSIONS	
Width	2.3 in. (5.6 cm)
Height	17.0 in. (43.2 cm)
Depth	5.1 in. (13.0 cm)
WEIGHT	2.7 lb (1.2 kg)

7. REPLACEABLE PARTS

7.01 This unit has no field-replaceable parts.

8. REFERENCES

- 8.01 The engineering drawings noted in Table C were used in the preparation of this Section.

TABLE C

TYPE	DRAWING NO.
Assembly	623323-000
Schematic	623323-002
Assembly	623324-000
Schematic	623324-002

- 8.02 Related information on the unit may be found in Section ITTR-15-323/ITTR-18-423, Communications Panel, 623323 and 623324 — Installation and Test.